

بنك الاسئلة

الصف  
الرابع  
الابتدائي  
٢٠٢٣

# التميز

أ/ محمود سعيد

## ELMOTAMYEZ QUESTIONS BANK SCIENCE

على مقررات شهر نوفمبر

BY

MRS . AMIRA AHMED



CARTOON SCIENCE

نسخة  
مجانية

ملحق الإجابات  
بالداخل



El.Motamyez.School

يمكنكم الحصول على المذكرات والاختبارات من خلال مسح رمز ال QR Code  
أو من خلال صفحة "التميز - أ/ محمود سعيد".  
يرجى مراعاة حقوق صاحب المحتوى عند النشر.





# EL MOTAMYEZ - SCIENCE Questions Bank

## REVISION on unit 3 & 4

### QUESTION 01

### Choose The Correct Answer

- 1  Light is .....
  - a takes up space
  - b is made up of matter
  - c is a form of energy
  - d has a magnetic force
- 2  Which type of energy does the sun provide Earth?
  - a light
  - b gravity
  - c chemical
  - d mechanical
- 3  Which of the following is a source of light?
  - a the moon
  - b our eyes
  - c fire
  - d a mirror
- 4  What property of light helps you see yourself in a mirror?
  - a refraction
  - b reflection
  - c absorption
  - d relativity
- 5  Which statement best explains why you can see yourself when you look at a mirror?
  - a Light is refracted as it passes through the mirror.
  - b Light is reflected, bouncing off the mirror.
  - c Light is refracted, bouncing off the mirror.
  - d Light is reflected as it passes through the mirror.
- 6  What type of surface scatters light unevenly?
  - a shiny
  - b rough
  - c smooth
  - d transparent
- 7  What word is used to describe light as it strikes a smooth, shiny surface and bounces off?
  - a shadow
  - b energy
  - c reflection
  - d wave length
- 8  What happens to light when it hits a rough surface?
  - a scattering
  - b reflection
  - c absorption
  - d refraction
- 9  Which set of objects below would all reflect light well?
  - a aluminum foil, brick wall, mirror
  - b metal spoon, tree trunk, aluminum foil.
  - c mirror, metal spoon, brick wall
  - d metal spoon, mirror, aluminum foil
- 10 The organ responsible for the sense of sight
  - a the ear
  - b the tongue
  - c the nose
  - d the eye
- 11 .....energy affects on sensory receptors in the eye, causing a vision.
  - a Sound
  - b Kinetic
  - c Light
  - d Magnetic







- 12** Which of the following organs are working together for seeing different objects?  
 (a) Nose and brain (b) Eyes and brain (c) Ears and brain (d) Tongue and brain
- 13** Each of the following is considered a source of light except .....  
 (a) the fire (b) the sun (c) the lamp (d) the eye
- 14** There is a tapetum lucidum in all of the following except .....  
 (a) the horse (b) the cat (c) the human (d) the dog
- 15** All the following considered as a source of light except .....  
 (a) sun (b) candle (c) fire (d) moon
- 16** All of the following are transparent objects, except .....  
 (a) glass (b) water (c) paper (d) air
- 17** Our eyes help us see what's around us. What is the organ responsible for perceiving what we see with our eyes?  
 (a) The lungs (b) esophagus (c) stomach (d) The brain
- 18** .....eyes have a thin membrane in the back of the eye.  
 (a) Human (b) Tarsier monkey (c) Snake (d) Bats
- 19** Both tarsier and owl, .....  
 (a) birds (b) can fly (c) are nocturnal animals (d) can swim
- 20** Each of human, fishing cat and tarsier, .....  
 (a) has an excellent vision. (b) becomes more active at night  
 (c) has a mirror-like membrane in its eye (d) has two eyes adapted for vision.
- 21** Bats use their ..... To get information about their surroundings in the dark  
 (a) eyes (b) tongue (c) ears (d) hands
- 22** Reading and writing are common types of communication in ..... World  
 (a) human (b) animals (c) birds (d) plants
- 23** Animals can communicate with each other through.....  
 (a) sounds and light (b) eating (c) writing (d) reading
- 24** Senses organs collect information and send signals to .....for processing and understanding .  
 (a) stomach (b) brain (c) hands (d) ear

Next Concept







**25 Human and animals use .....to communicate**

- ☐ a sound     
 ☐ b light     
 ☐ c movements     
 ☐ d all the previous answers

**QUESTION 02**

**Complete using words between brackets**

- 1 Cats' eyes are adapted to night vision due to the presence of ..... behind their eyes (tapetum lucidum - small eyes).
- 2 The ..... eyes glows in the dark. (snake - fishing cat).
- 3 When light falls on an object and the light....., so we can see this object. (refracts - reflects)
- 4 The reflected light from the object enters the eye through ..... (eye pupil - eye retina)
- 5 The eye sends messages to ..... through the nerves. (Brain - spinal cord).
- 6 Human use ..... to see in the dark. (medical glasses - night goggle)
- 7 The pupils of eyes of nocturnal animals usually opened .....than the pupil of human eye (wider – less)
- 8 When light is absorbed by an opaque object, .....is formed. (Tapetum lucidum – shadow)
- 9 Nocturnal animals have ..... eyes than human (bigger – smaller)
- 10 ..... is from the opaque objects. (Carton - Glass)
- 11 Mirror like membrane of fishing cat eyes considered as ( structural adaptation – behavioural adaptation ) .
- 12 Light travel in (straight – curved line)
- 13 tapetum lucidum is a (thin – thick) layer at the back of some animal's eye reflect light.
- 14 opaque objects (allow – don't allow) light to pass through and objects (can – cannot) be seen through them.
- 15 if the surface is smooth the light rays will reflect in (one – different) direction.
- 16 .....materials allow most light to pass through and objects can be seen clearly through them (opaque – transparent)







- 17 The energy which must present to make our eyes able to see objects is .....energy (light – sound).
- 18 if the surface is (smooth – rough) the rays will scatter or diffuse in different directions.
- Next Concept →
- 19 From the organs that we can use to send or receive the code (Eye – heart)
- 20 Human is similar to fireflies in using ..... To communicate (light – sound)
- 21 Bats makes (high – low) pitched sound
- 22 Humpback songs have low- pitches sounds which travel through (warm – cold) water.
- 23 ..... are forms of codes (thumb up and down - swimming).
- 24 Fireflies use their .....to form different flash patterns (eyes– wings)
- 25 Humpback whales communicate with each other through the .....sense (hearing - smelling).
- 26 .....season is considered a feeding season of humpback whales (winter – summer)
- 27 The dancing bee moves in a.....patterns (circle – eight)
- 28 In morse code the ..... beeps known as dots (long beeps – short beeps).
- 29 ..... ants are responsible for locating food (nurse ants – scout ants).
- 30 Fireflies produce light because of ..... (chemical reaction – light reflection).
- 31 The honey bee makes (one dance – three dances or more) if the flower is a little farther away.
- 32 Solider ants are responsible for ..... (warning from dangers - locating food).
- 33 In summer the song of humpback whales has ..... (high-pitched – low pitched) sounds.
- 34 Sense organs collect information then send it to brain through (hands -nerves)
- 35 Humpback whale's songs have high-pitched sound in ..... (feeding season - matting season)





- 36 The communication method of bee is (dancing – flash light).

## QUESTION 03

Put (✓) or (x) or the following statements:

- 1 The moon is a source of light. ( )
- 2 Both humans and animals need a source of light to see ( )
- 3 Nocturnal animals have eyes that are bigger than the human eye. ( )
- 4 Some animals can see at night, such as a wild cat ( )
- 5 Human has a tapetum lucidum in his eye to help him see at night ( )
- 6 Wood is a transparent object that allows light to pass through it. ( )
- 7 Bats use their sense of smell to avoid dangers ( )
- 8 Tapetum lucidum of fishing cat considered as a structural adaptation. ( )
- 9 If I can see my face clearly on a surface, this means that it is a smooth, shiny surface. ( )
- 10 Fishing cat has a mirror-like membrane on the back of the eye. ( )
- 11 In order to translate the code, the brain must identify it ( )
- 12 Animals can use more than one senses to communicate with each other ( )
- 13 Bees can know the sweet taste by their sense of smell ( )
- 14 Both Morse code and humpback whale depend on sound energy ( )
- 15 Human use light to communicate such as using traffic lights ( )

## QUESTION 04

Complete the following sentences

- 1 Some animals have the ability to see in the dark because of.....
- 2 ....., .....and .....are sources of light.
- 3 Human need .....to see in the dark.
- 4 Mirror and moon .....light falling on them.
- 5 when light fall from source of light on object, it .....to our eyes .
- 6 .....will form when light hits opaque objects and no light pass through the body .







- 7 light is a visible form of energy that travels in form of .....
- 8 I saw an eye shining in the dark, this animal could be .....
- 9 Both fireflies and honey bees use the sense of .....in their communication.
- Next Concept →
- 10 .....do special dances to tell others the direction and distances to food and water.
- 11 Morse code consists of .....and .....
- 12 ..... produce flash lights to warn off predators or to attract a mate.
- 13 Whales use .....energy to communicate but fireflies use .....energy.
- 14 In Morse code short beeps known as .....and long beeps known as .....
- 15 .....communicate with each other by using the songs.
- 16 .....ants are responsible for sending smelly message when amount of food decreases.

## QUESTION 05

## Write the scientific term

- 1 they are Objects that don't allow light to pass through. ( )
- 2 it is the organ of sight that is affected by light in human and animals. ( )
- 3 A device (tool) human use to see in the dark. ( )
- 4 The main source of light. ( )
- 5 it is a visible form of energy that travels in form of waves. ( )
- 6 it is from nocturnal animals can turn its head 180 degree and has long tail . ( )
- 7 it is a thin layer at the back of some animals eyes reflects light. ( )
- 8 they are materials objects that allow light to pass through. ( )
- Next Concept →
- 9 Sense organ that can detect light energy . ( )
- 10 It is a device help blind person in walking by emitting a high- pitched sounds. ( )





- 11 It is a code that use symbols in a pattern to give a specific meaning according to the arrangement of letter in a word. ( )
- 12 It is a pattern that has meaning. ( )
- 13 It is a simple code consists of short beeps (dots) and long beeps(dashes). ( )
- 14 The short beeps of morse code. ( )
- 15 It is a code in form of sounds used to transfer information . ( )

**QUESTION 06****Give reason..... ?**

- 1 Nocturnal animals can see in the dark  
.....
- 2 When light fall on object, we can see it  
.....
- 3 Fishing cat eyes glow in the dark  
.....
- 4 Moon is not considered as a source of light  
.....
- 5 We can see objects behind transparent materials  
.....
- 6 We can see objects.  
.....
- 7 The tapetum lucidum is very important in some nocturnal animal.  
.....
- 8 The human body forms a shadow when light falls on it.  
.....
- 9 The pupils of nocturnal animals' eyes open wider than human's eyes  
.....
- 10 When light fall on mirror it reflects in one direction  
.....
- Next Concept →
- 11 Whales use hearing sense as songs tones  
.....





- 12 Fire flies use its wings to form different flash patterns  
.....
- 13 People use a rescue flare  
.....
- 14 The nurse ants send smelly message to scout ants  
.....
- 15 People use signal fires  
.....
- 16 Bees do special dances (figure – eight)  
.....
- 17 blind person uses special cane during walking  
.....
- 18 Humans use reading, writing and speaking  
.....

**QUESTION 07****What happened if .... ?**

- 1 light fall on a book.  
.....
- 2 Nocturnal animals don't have tapetum lucidum.  
.....
- 3 Light falls on a mirror.  
.....
- 4 Light falls on rough surface such as painted surface.  
.....
- 5 Light fall on transparent object as glass window.  
.....
- 6 When fire flies want to warn off predator or attract mate.  
.....
- 7 A danger becomes close to the colony of ants.  
.....
- 8 The sound waves produced by a bat hits an insect.  
.....
- 9 We use flash LED light near fireflies  
.....
- 10 scout bee becomes very close to a flower.  
.....





11

The amount of food in a colony of ants decreases.

.....

12

The cane of a blind person picks up echo.

.....

13

A scout bee becomes far away from the flower.

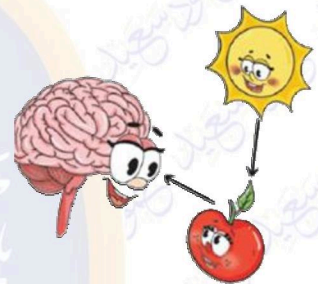
.....

## QUESTION 08

## Answer the following

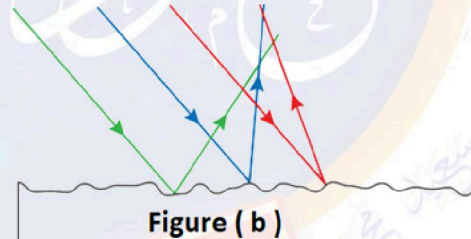
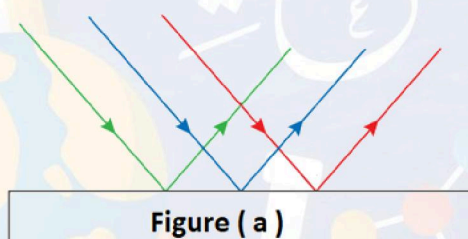
1 **Complete after noticing the following figure - What happens until you see this apple?**

- The light falls on the .....then it is reflected on the eyes – so the eyes transmit the message to .....then he interprets it and translates it, so we see the apple.



2

**Look at the following figures, then answer the questions below:**



- The surface in figure (a) is ..... Because .....
- The surface in figure (b) is .....Because .....

In the previous two figures, the falling and reflected rays show that light

- travels in .....lines.
- The surface in figure (a) may be.....  
( plastic - wood - mirror - cloth )

3

**Classify the following in this table**

a

( Mirror – cloth – metal – wood – paper )

| Rough surface | Smooth surface |
|---------------|----------------|
|               |                |





- (b)** ( Lenses – rock- wood – air – glass – metal – water – human )

| Opaque objects | Transparent objects |
|----------------|---------------------|
|                |                     |

- (4)** Choose from column (A) what suit it in both column (B):

| ( A ) |              | ( B ) |   |
|-------|--------------|-------|---|
| ①     | Human        | ①     | Reflect sun light .                                     |
| ②     | moon         | ②     | the main source of light .                              |
| ③     | fishing cats | ③     | are nocturnal animals that have excellent night vision. |
| ④     | sun          | ④     | need night vision goggle to see in the dark .           |

- (5)** Look at the following pictures then answer the questions

Rise the thumb up a kind of .....

- ① codes      ② colours      ③ waves      ④ light



- (6)** Look at the following pictures then answer the questions

This figure represents..... which is consists of .....



**أنتهت الأسئلة مع أطيب الأمنيات بالنجاح والتوفيق**





بنك الاسئلة

الصف  
الرابع  
الابتدائي  
٢٠٢٣

# التميز

أ/ محمود سعيد



## MODEL ANSWERS SCIENCE

على مقررات شهر نوفمبر

BY

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CARTOON SCIENCE



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يمكنكم الحصول على المذكرات والاختبارات من خلال مسح رمز ال QR Code  
أو من خلال صفحة "التميز - أ / محمود سعيد".  
يرجى مراعاة حقوق صاحب المحتوى عند النشر.





# EL MOTAMYEZ - SCIENCE Questions Bank

## REVISION on unit 3 & 4

### QUESTION 01

### Choose The Correct Answer



Light is .....

1

(a)

takes up space

(b)

is made up of matter

(c)

**is a form of energy**

(d)

has a magnetic force

2

(a)

**light**

(b)

gravity

(c)

chemical

(d)

mechanical

3

(a)

**Which of the following is a source of light?**

(b)

the moon

(c)

**fire**

(d)

a mirror

4

(a)

**What property of light helps you see yourself in a mirror?**

(b)

**reflection**

(c)

refraction

(d)

relativity

(a)

**Which statement best explains why you can see yourself when you look at a mirror?**

5

(a)

Light is refracted as it passes through the mirror.

(b)

Light is refracted, bouncing off the mirror.

(c)

**Light is reflected, bouncing off the mirror.**

(d)

Light is reflected as it passes through the mirror.

6

(a)

**What type of surface scatters light unevenly?**

(b)

**rough**

(c)

shiny

(d)

transparent

7

(a)

**What word is used to describe light as it strikes a smooth, shiny surface and bounces off?**

(b)

shadow

(c)

**reflection**

(d)

wave length

8

(a)

**What happens to light when it hits a rough surface?**

(b)

**scattering**

(c)

reflection

(d)

absorption

9

(a)

**Which set of objects below would all reflect light well?**

(b)

aluminum foil, brick wall, mirror

(c)

metal spoon, tree trunk, aluminum foil

(d)

**metal spoon, mirror, aluminum foil**

10

(a)

**The organ responsible for the sense of sight**

(b)

the ear

(c)

the tongue

(d)

**the eye**

11

(a)

**.....energy affects on sensory receptors in the eye, causing a vision.**

(b)

Sound

(c)

**Light**

(d)

Magnetic







Which of the following organs are working together for seeing different objects?

- 12 (a) Nose and brain (b) **Eyes and brain** (c) Ears and brain (d) Tongue and brain

Each of the following is considered a source of light except .....

- 13 (a) the fire (b) the sun (c) the lamp (d) **the eye**

There is a tapetum lucidum in all of the following except .....

- 14 (a) the horse (b) the cat (c) **the human** (d) the dog

All the following considered as a source of light except .....

- 15 (a) sun (b) candle (c) fire (d) **moon**

All of the following are transparent objects, except .....

- 16 (a) glass (b) water (c) **paper** (d) air

Our eyes help us see what's around us. What is the organ responsible for perceiving what we see with our eyes?

- 17 (a) The lungs (b) The esophagus (c) The stomach (d) **The brain**

.....eyes have a thin membrane in the back of the eye.

- 18 (a) Human (b) **Tarsier monkey** (c) Snake (d) Bats

Both tarsier and owl, .....

- 19 (a) birds (b) can fly (c) **are nocturnal animals** (d) can swim

Each of human, fishing cat and tarsier, .....

- 20 (a) has an excellent vision. (b) becomes more active at night (c) has a mirror-like membrane in its eye (d) **has two eyes adapted for vision.**

Next Concept

Bats use their ..... To get information about their surroundings in the dark

- 21 (a) eyes (b) tongue (c) **ears** (d) hands

Reading and writing are common types of communication in ..... World

- 22 (a) **human** (b) animals (c) birds (d) plants

Animals can communicate with each other through.....

- 23 (a) **sounds and light** (b) eating (c) writing (d) reading

Senses organs collect information and send signals to ..... for processing and understanding.

- 24 (a) stomach (b) **brain** (c) hands (d) ear







Human and animals use .....to communicate

25

- (a) sound (b) light (c) movements (d) **all the previous answers**

## QUESTION 02

## Complete using words between brackets

- 1 Cats' eyes are adapted to night vision due to the presence of ..... behind their eyes (**Tapetum lucidum** - small eyes).
- 2 The ..... eyes glows in the dark. (snake - **fishing cat**) .
- 3 When light falls on an object and the light.....,so we can see this object. (refracts - **reflects**)
- 4 The reflected light from the object enters the eye through ..... ( **eye pupil** - eye retina ) .
- 5 The eye sends messages to ..... through the nerves. (**brain** - spinal cord) .
- 6 Human use ..... to see in the dark (medical glasses - **night goggle**)
- 7 The pupils of eyes of nocturnal animals usually opened ..... than the pupil of human eye (**wider** – less) .
- 8 When light is absorbed by an opaque object, ..... is formed. (tapetum lucidum – **shadow**).
- 9 Nocturnal animals have ..... eyes than human (**bigger** – smaller).
- 10 ..... is from the opaque objects. (**Carton** - Glass).
- 11 Mirror like membrane of fishing cat eyes considered as (**structural adaptation** – behavioral adaptation).
- 12 Light travel in (**straight** – curved line).
- 13 Tapetum lucidum is a (**thin** – thick) layer at the back of some animal's eye reflect light.
- 14 Opaque objects (allow – **don't allow**) light to pass through and objects (can – **cannot**) be seen through them.
- 15 If the surface is smooth the light rays will reflect in (**one** – different) direction.
- 16 .....materials allow most light to pass through and objects can be seen clearly through them (opaque – **transparent**).
- 17 The energy which must present to make our eyes able to see objects is ..... energy (**light** – sound) .





18

if the surface is (smooth – **rough**) the rays will scatter or diffuse in different directions.

Next Concept

19

From the organs that we can use to send or receive the code (**Eye** – heart).

20

Human is similar to fireflies in using ..... to communicate (**light** – sound).

21

Bats makes (**high** – low) pitched sound.

22

Humpback songs have low- pitches sounds which travel through (**warm** – cold) water.

23

..... are forms of codes (**thumb up and down** - swimming).

24

Fireflies use their .....to form different flash patterns (eyes – **wings**).

25

Humpback whales communicate with each other through the ..... sense (**hearing** - smelling).

26

.....season is considered a feeding season of humpback whales (winter – **summer**).

27

The dancing bee moves in a..... patterns (circle – **eight**).

28

In morse code the ..... beeps known as dots (long beeps – **short beeps**).

29

..... ants are responsible for locating food (Nurse ants – **scout ants**).

30

Fireflies produce light because of (**chemical reaction** - light reflection)

31

The honey bee makes (**one dance** – three dances or more) if the flower is a little farther away.

32

Solider ants are responsible for ..... (**warning from dangers** - locating food).

33

In summer the song of humpback whales has ..... (high – **low**) pitched sounds.

34

Sense organs collect information then send it to brain through..... (hands -**nerves**).

35

Humpback whale's songs have high-pitched sound in ..... (feeding season - **matting season**).

36

The communication method of bee is (**dancing** – flash light).





## QUESTION 03

Put (✓) or (x) or the following statements:

- ① The moon is a source of light. ✗
- ② Both humans and animals need a source of light to see ✓
- ③ Nocturnal animals have eyes that are bigger than the human eye. ✓
- ④ Some animals can see at night, such as a wild cat ✓
- ⑤ Human has a tapetum lucidum in his eye to help him see at night ✗
- ⑥ Wood is a transparent object that allows light to pass through it. ✗
- ⑦ Bats use their sense of smell to avoid dangers ✗
- ⑧ Tapetum lucidum of fishing cat considered as a structural adaptation. ✓
- ⑨ If I can see my face clearly on a surface, this means that it is a smooth, shiny surface. ✓
- ⑩ Next Concept Fishing cat has a mirror-like membrane on the back of the eye. ✓
- ⑪ In order to translate the code, the brain must identify it ✓
- ⑫ Animals can use more than one senses to communicate with each other ✓
- ⑬ Bees can know the sweet taste by their sense of smell ✗
- ⑭ Both Morse code and humpback whale depend on sound energy ✓
- ⑮ Human use light to communicate such as using traffic lights ✓

## QUESTION 04

Complete the following sentences

- ① Some animals have the ability to see in the dark because of **Tapetum lucidum**.
- ② **sun**, **candle** and **fire** are sources of light.
- ③ Human need **night vision goggles** to see in the dark.
- ④ Mirror and moon **reflect** light falling on them.
- ⑤ When light fall from source of light on object, it **bounces off** to our eyes.
- ⑥ **shadow** will form when light hits opaque objects and no light pass through the body.
- ⑦ light is a visible form of energy that travels in form of **waves**.







- 8 I saw an eye shining in the dark, this animal could be **cat (nocturnal animal)**.
- 9 Both fireflies and honey bees use the sense of **sight** in their communication.
- 10 **Honey bees** do special dances to tell others the direction and distances to food and water.
- 11 Morse code consists of **dots** and **dashes**.
- 12 **Fire flies** produce flash lights to warn off predator or to attract a mate
- 13 Whales use **sound** energy to communicate but fireflies use **light** energy.
- 14 In Morse code short beeps known as **dots** and long beeps known as **dashes**.
- 15 **humpback whales** communicate with each other by using the songs.
- 16 **Nurse** ants are responsible for sending smelly message when amount of food decreases.

## QUESTION 05

## Write the scientific term

- |  |                              |
|--|------------------------------|
| 1 They are objects that don't allow light to pass through.                         | <b>opaque</b>                |
| 2 It is the organ of sight that is affected by light in human and animals.         | <b>eye</b>                   |
| 3 A device (tool) human use to see in the dark.                                    | <b>night vision goggles</b>  |
| 4 The main source of light.  | <b>sun</b>                   |
| 5 It is a visible form of energy that travels in form of waves.                    | <b>light</b>                 |
| 6 It is from nocturnal animals can turn its head 180 degree and has long tail.     | <b>tarsier</b>               |
| 7 It is a thin layer at the back of some animal's eyes reflects light.             | <b>tapetum lucidum</b>       |
| 8 They are materials objects that allow light to pass through.                     | <b>transparent materials</b> |
| 9 Sense organ that can detect light energy.  | <b>Eye</b>                   |
| 10 It is a device help blind person in walking by emitting a high- pitched sounds. | <b>Blind people cane</b>     |







- 11 It is a code that use symbols in a pattern to give a specific meaning according to the arrangement of letter in a word.
- 12 It is a pattern that has meaning.
- 13 It is a simple code consists of short beeps (dots) and long beeps(dashes).
- 14 The short beeps of morse code.
- 15 It is a code in form of sounds used to transfer information.

writing

Code

morse code

dots

language

## QUESTION 06

## Give reason..... ?

- 1 Nocturnal animals can see in the dark  
**Because of tapetum lucidum**
- 2 When light fall on object, we can see it  
**Because of light reflection ( light fall from light source on object then it reflect to our eyes)**
- 3 Fishing cat eyes glow in the dark  
**mirror-like membrane at the back of the eye that reflects the light falls on it.**
- 4 Moon is not considered as a source of light  
**Because it reflects the light of the sun that falls on it.**
- 5 We can see objects behind transparent materials  
**Because transparent materials allows most of light to pass through it .**
- 6 We can see objects.  
**Because of light reflection.**
- 7 The tapetum lucidum is very important in some nocturnal animal.  
**Allow them to see in the dark so they can hunt or avoid to being hunted.**
- 8 The human body forms a shadow when light falls on it.  
**Because human body is opaque object.**
- 9 The pupils of nocturnal animals' eyes open wider than human's eyes  
**To allow more light to enter the eye.**
- 10 When light fall on mirror it reflects in one direction  
**Because mirror is a shiny and smooth surface.**
- 11 Whales use hearing sense as songs tones  
**To communicate with each other.**

Next Concept






- 12 Fire flies use its wings to form different flash patterns  
**to warn off predators or to attract a mate**
- 13 People use a rescue flare  
**To communicate for getting help**
- 14 The nurse ants send smelly message to scout ants  
**To alert the scout ants that the food is low .**
- 15 People use signal fires  
**To communicate over distances.**
- 16 Bees do special dances (figure – eight)  
**To tell other bees the correct direction and distance to food and water (to communicate with each other) .**
- 17 blind person use special cane during walking  
**Because it makes vibration to tell the blind person using it where objects around him located.**
- 18 Humans use reading, writing and speaking  
**To communicate with each other.**

## QUESTION 07

## What happened if .... ?

- 1 light fall on a book.  
**Light will reflect on our eyes so we can see the book.**
- 2 Nocturnal animals don't have tapetum lucidum.  
**They cannot see in the dark.**
- 3 Light falls on a mirror.  
**Light rays will reflect in one direction.**
- 4 Light falls on rough surface such as painted surface.  
**Light rays will (scattered) reflect in different directions.**
- 5 Light fall on transparent object as glass window.  
**Light will pass through it and I can see objects through it.**
- 6  When fire flies want to warn off predator or attract mate  
**It uses its wings to produce flash light**
- 7 A danger becomes close to the colony of ants.  
**Solider ants send smelly messages**
- 8 The sound waves produced by a bat hits an insect.  
**The sound waves return back to the bat inform of echo so bat can detect the place of insect.**





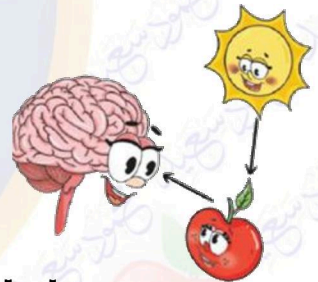
- 9 We use flash LED light near fireflies  
**Fireflies responded by flashing back the same flash pattern at the same time.**
- 10 Scout bee becomes very close to a flower.  
**It dances one dance.**
- 11 The amount of food in a colony of ants decreases.  
**Nurse ants produce smelly message to scout ants.**
- 12 The cane of a blind person picks up echo.  
**The cane changes echo to vibration that the blind person senses it by his thumb.**
- 13 A scout bee becomes far away from the flower.  
**It dances three or more dances.**

## QUESTION 08

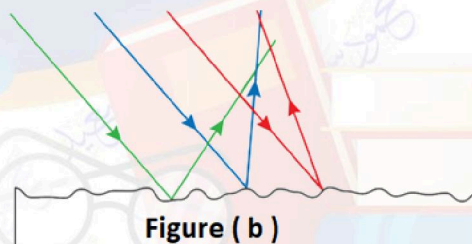
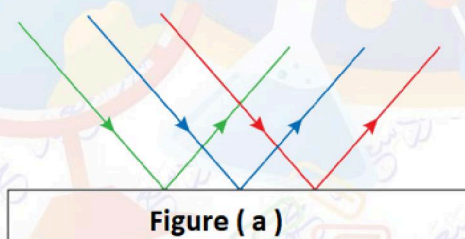
## Answer the following

- 1 Complete after noticing the following figure - What happens until you see this apple?

- The light falls on the **apple** then it is reflected on the eyes – so the eyes transmit the message to **the brain** then he interprets it and translates it, so we see the apple.



- 2 Look at the following figures, then answer the questions below:



- a. The surface in figure (a) is **smooth (mirror)** Because **the light rays reflected in one direction**
- b. The surface in figure (b) is **rough (wood or cloth)** Because **the light rays reflected in different directions**
- c. In the previous two figures, the falling and reflected rays show that light travels in **straight** lines.
- d. The surface in figure (a) may be .....  
(plastic - wood - **mirror** - cloth)





### 3 Classify the following in this table

a ( Mirror – cloth – metal – wood – paper )

| Rough surface        | Smooth surface |
|----------------------|----------------|
| Wood – cloth - paper | Mirror – metal |

b ( Lenses – rock- wood – air – glass – metal – water – human )

| Opaque objects             | Transparent objects          |
|----------------------------|------------------------------|
| Rock- metal – human - wood | Water – glass – air - lenses |

### 4 Choose from column (A) what suit it in both column (B):

| ( A ) |              | ( B ) |   |       |
|-------|--------------|-------|---|-------|
| 1     | Human        | a     | Reflect sun light.                                      | 1 – d |
| 2     | moon         | b     | the main source of light.                               | 2 – a |
| 3     | fishing cats | c     | are nocturnal animals that have excellent night vision. | 3 – c |
| 4     | sun          | d     | need night vision goggle to see in the dark .           | 4 - b |

### 5 Look at the following pictures then answer the questions

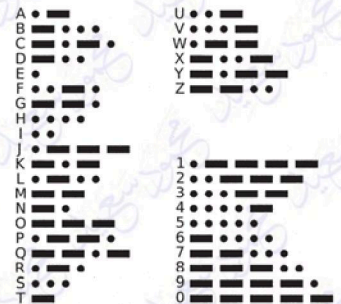
Rise the thumb up a kind of .....

a **codes**      b colours      c waves      d light



### 6 Look at the following pictures then answer the questions

This figure represents **morse code** which is consists of **dots and dashes**



تم بحمد الله

بسم الله الرحمن الرحيم " إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ إِنَّا لَا نُضِيعُ أَجْرَ مَنْ أَحْسَنَ عَمَلًا " صدق الله العظيم

